INTRANASAL FENTANYL

Background

Narcotics are used for their analgesic, anxiolytic and euphoric actions. The analgesic dose is lower than the sedative dose. Morphine is usually given via the intravenous route with the additional discomfort and pain of insertion of an IV cannula. Intranasal (IN) fentanyl has the potential to eliminate this disadvantage and provide significant reduction in pain scores by 5 minutes. It has a duration of action of at least 30 minutes.

It has been shown to give equivalent analgesia to IM morphine, IV morphine. The intranasal delivery of fentanyl provides rapid absorption (therapeutic levels within 2 minutes) and excellent bioavailability (at least 50%).

Preparation

Use IV preparation – 100mcg/2ml.
Use a 1mL syringe (ideally threaded) and a Mucosal Atomiser Device (MAD)

Dose

1.5 micrograms/kg (minimum dose of 20 micrograms, maximum dose of 100 micrograms)

A second dose of 0.5 micrograms/kg can be given after 10 minutes if significant pain persists.

Technique

The patient should be reclining at 45 degrees and the syringe should be held horizontal and the contents expelled as a mist into the nares in one rapid dose. Do not ask patient to sniff.

Doses of 1 mL (50 micrograms) or more should be divided between nares.

The volume to be insufflated limits use of intranasal fentanyl to children under 70kg.
**Indications**

Children older than 1 year with moderate to severe pain eg burns, suspected fractures. Particularly useful to allow topical anaesthetic application prior to IV insertion or in situations where IV access is not likely to be required eg burns, dressing changes, foreign body removal, POP application.

**Relative Contraindications**

Age less than 1 year (limited data on safety or efficacy in this age group and minimum practical dose of 20mcg is likely to be too high)
Head trauma, chest trauma, abdominal trauma and hypovolaemia

**Precautions**

Condition or injury requiring immediate IV access
URTI or other cause of blocked nose - may cause unreliable delivery of drug.
Prior dosing with narcotic may produce drug accumulation
Co-administered sedatives and co-morbid medical conditions may require modified dose schedules

**Possible Adverse Effects**

Uncommon – Nausea, vomiting, sedation (Prophylactic antiemetic use is not required in paediatrics)
Rare (not described with IN use) – respiratory depression, muscle rigidity (including chest wall)

**Monitoring and Recovery**

Observe in CED for 20 minutes post dose.
Suitable for discharge one hour post dose if responding appropriately.
Provide caregiver with information regarding transport and observation at home.

**References**


